

US Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
140G0118R0037 / G18AS00078
Frequently Asked Questions
Last Updated: August 28, 2018

FAQs will be updated weekly; new FAQs will be highlighted for easy recognition

1. Proposal Submissions

1.1 Question:

After submitting a proposal, what type of confirmation does the applicant receive to know that the submission has been received?

1.1 Response:

Acquisition proposals (for projects to be contracted through the USGS GPSC) must be submitted electronically to the Contracting Officer Vickie Floyd at gs_baa@usgs.gov. Applicants will receive a quick confirmation of their submission, generally within 1 week of the date of submission as well as an official acknowledgement of the receipt by the Contracting Officer immediately following the closing date of the announcement.

Financial assistance (cooperative agreements) proposals (for projects being acquired through the applicant's contract) must be submitted electronically through the grants.gov portal. To apply through the grants.gov portal, go to <https://www.grants.gov/web/grants/home.html>. Applicants will receive an automatic response from grants.gov acknowledging that your application was successfully submitted to grants.gov. In addition, the applicant will receive an official acknowledgement of the receipt by the Contracting Officer immediately following the closing date of the announcement.

1.2 Question:

If an acquisition is planned for the upcoming 2018-2019 winter season, will submitting a proposal earlier than the October 26, 2018 deadline increase the chances of an approval/denial notification closer to the initial November 15, 2018 notification date?

1.2 Response:

The 3DEP Team does not begin evaluation of proposals until after the October 26, 2018 deadline. At that point in time all proposals will be evaluated and ranked. The proposed submission window is not considered when ranking the proposals, HOWEVER once proposals have been ranked, the USGS will notify those applicants with time sensitive submissions as early as possible in the notification cycle. It is important to note that final award is based on the availability of funding.

1.3 Question:

During the August 22nd public webinar, the 3DEP team noted that over the last three years the average BAA award has covered approximately 35% of the total project cost. What is the average rate of awarded applicants? For projects that have not been chosen for funding, can you highlight some of the common reasons a project may not receive funding.

1.3 Response:

In FY18, the BAA provided funding to support 90% of the requests. It is important to note:

- the acceptance rate has been going up as the stakeholders become more familiar with and structure their submissions to align with the criteria for selection as defined in Section VI. Proposal Review Information A. Criteria of the solicitation
- the 3DEP program reserves the right to negotiate with the applicant on the scope of a project should the request exceed the available funding
- Project support is based on the availability of funding. All projects are scored and ranked based on the stated criteria. The program's ability to support all FY19 projects recommended for award will be based on the final FY19 budget.

Every year we have a number of projects that are not selected for award. The final score of a project is the sum total of the score for the individual criterion. As noted in section VI. Proposal Review Information of the solicitation, *"Each proposal will be evaluated based on the overall value and benefit to the government based on project location and areal extent of proposed data acquisition, cost realism (cost per square mile for defined geographic area), cost share (funds contributed by applicant), maturity of applicant's proposal and designated funding, technical approach and past performance as applicable and related to the subject of this BAA". "The most important factors are project location, geographic overlap with areas identified by Federal agencies as areas of interest for lidar acquisition, project cost and cost share (funds contributed by applicants) and technical approach. These factors are equally valued. Secondary factors include areal extent and maturity of applicant's proposal and (maturity of) designated funding sources. Past performance is the factor with the least weight."*

With regards to unsuccessful applicants, at the end of each BAA cycle the program provides feedback to all unsuccessful applicants. The feedback is relative to the criteria as stated in the BAA. Applicants who take note of the opportunities to modify their submissions to align their projects with the published criteria have a greater opportunity of success in the next BAA cycle.

1.4 Question:

What percentage of awardees are new applicants in general each cycle?

1.4 Response:

In FY18, the percentage of applicants receiving awards was approximately 31% new and 69% returning applicants. The returning applicants are generally those who have state or regional plans and are strategically working across their entire area of interest, acquiring a portion of their entire AOI each year.

1.5 Question:

If you plan on using GPSC is it necessary to complete past performance?

1.5 Response:

Applicants choosing to make use of the services of the [Geospatial Products and Services \(GPSC\)](#) Suite of Contracts do not need to complete the *Technical Evaluation* component of Attachment A: Proposal Submission Tool. They also do not need to make any references to a lidar vendor in the *Past Performance* Section of the Proposal Submission Tool. As appropriate, applicants may however wish to include information on their ability to manage large lidar acquisition projects with multiple partners or work with their funding authority to secure and commit the funding.

1.6 Question:

I am interested in possibly investing in the 3DEP program and I have a few specific questions:

- Does our company need to be State Certified or have a Registered Surveyor (PLSS) for the State in which we propose to acquire data?
- Is this a requirement per State or is each State different?
- Does there have to be a partnership agreement with another private firm or can one private entity take on the entire task of a specific AOI if they have the capability?

1.6 Response:

Proposals are invited from applicants who wish to propose a partnership with 3DEP to fund lidar data acquisition and the creation of lidar derived elevation products. Applicants may fund an acquisition project through the USGS Geospatial Products and Services Contract or they may request 3DEP funds to apply towards a lidar data acquisition project where the requesting partner uses their own contracting vehicle. Federal agencies, state and local governments, tribes, academic institutions and the private sector are eligible to submit proposals. The Government will review proposals based on the project's alignment with the evaluation criteria identified in section VI.A. of the BAA.

Your question suggests that you would be proposing to use your own contract vehicle. While the BAA itself does not contain language that specifically addresses the certification requirements, submission of a proposal includes a technical proposal and reference to past performances. During the evaluation period the evaluation team would verify that a company proposing to do work on behalf of 3DEP does have the appropriate expertise, license(s) and certification(s) to work in the state where they are proposing to acquire data.

With regards to the specific question, there is no requirement that a private firm must work with another private firm to assure acquisition of an entire project area. It is important to note that 3DEP is a partnership program. Each applicant (in your case a private firm) is requesting to enter into a partnership with 3DEP to acquire data over an area of mutual interest and benefit. In FY18 partners offered up between 50% and 95% of the project costs. Cost share is one of the criteria against which proposals are rated. The larger the cost share, the higher the score for that criteria. All of the selection criteria are outlined in section VI *Proposal Review Information* of the current solicitation. The BAA does not designate specific project areas; as a national program we encourage proposals for any area of the country that does not yet have 3DEP compliant data (as noted in *Attachment E: 3DEP Status Graphic*). 3DEP encourages proposals and provides a higher score for those proposals that overlap with current 3DEP priorities as noted in Attachments F - H. All attachments are available as part of the full solicitation. In addition, the attachments will be available for download from the [FY19 USGS BAA for 3DEP Reference Materials](#).

1.7 Question:

Is there a published scoring process?

1.7 Response:

The USGS does not reveal the specific points for each criterion, however Section VI. C (*Proposal Review Information, Evaluation Factors*) notes the following:

C. Evaluation Factors

The most important factors are project location, geographic overlap with areas identified by Federal agencies as areas of interest for lidar acquisition, project cost and cost share (funds contributed by applicants) and technical approach. These factors are equally valued. Secondary factors include areal extent and maturity of applicant's proposal and (maturity of) designated funding sources. Past performance is the factor with the least weight.

1.8 Question:

Can an applicant submit more than 1 BAA proposal?

1.8 Response:

Yes. There is no limit to the number of proposals that an applicant can submit. Each proposal will be evaluated independently against the criteria as noted in the BAA.

1.9 Question:

Is the partner commitment letter/attachment D the same this year as last year? I ask because I've had partners filling out that for several months and I used last year's form.

1.9 Response:

The content of FY18 Attachment D (*Applicant Validation of Funding Partners*) is the same as the content of FY17 Attachment B (*Validation of Proposed Funding Partners*). The header and footer have been changed to reflect the switch from Attachment B to Attachment D and provide the updated solicitation numbers. The program encourages all applicants to use the updated materials, HOWEVER as the content of the *Validation of Proposed Funding Partners* has not changed, and in recognition of the fact that partners have been proactively working in their new proposals, the USGS can accept the FY17 version. We encourage you to manually update and initial the solicitation number in the header and footer to reflect the fact that an applicant is validating funding for an FY18 project.

Please note that while we will accept a manually updated version of the *Validation of Proposal Funding Partners*, applicants MUST use the current version of Attachment A, the *Proposal Submission Tool*. The FY18 form contains important updated costs and deadlines.

A Validation of Funding Partner is required for all federal, state, local, tribal, non-project and private sector funding partners listed in your funding table.

1.10 Question:

For those applicants proposing to use the [GPSC Suite of Contracts](#), if a preferred vendor is specified in the application does this guarantee that the vendor will win the project? Where specifically in the BAA application should the preferred vendor be listed? Technical approach?

1.10 Response:

The selection of a contractor for any given project is based on a number of factors designed to result in a successful completion of the project for the USGS and for the funding partners. If the applicant has a preferred vendor, we would encourage you to note this in your application and the USGS will make every effort to award the task order to that vendor based on your preference. Applicants should include this information in Attachment A: Proposal Submission Tool under Project Summary, Technical Approach or Additional Project Details or Clarifications.

2. Funding

2.1 Question:

What is the expected USGS federal budget for FY19 3DEP awards? Approximately how much is expected from FEMA, NRCS, and other federal partners? How do you expect the overall FY19 award amounts to compare to FY17 awards?

2.1 Response:

The FY19 Federal Budget has not yet been finalized and signed into law. Until the final budget is set, the 3DEP federal funding partners (including the USGS, FEMA, NRCS and others) are not yet in a position to determine the FY19 support for 3DEP. Over the past 4 years of the BAA (FY15, FY16 and FY17, FY18), the federal budget to support 3DEP BAA awards has remained consistent, approximately \$10M each year. Support for the program within the 3DEP federal community remains high; initial indications are that the collective federal community will once again be able to commit \$10M to support BAA awards in FY19. All projects are ranked against the criteria identified within the solicitation. Should the funding levels be reduced, the program will support those projects with the highest overall rankings.

In FY18, the average BAA award covered 39% of the total project cost, resulting in an average cost share of 61% by award recipients. Project awards ranged from \$23,205 to \$1,056,000, with an average award of \$403,134. The larger project awards consistently align with the projects with the greatest areal extent. The evaluation criteria include an evaluation of the overall cost and the percentage of the funding being offered by the project funding partners. In FY18 partners offered to cover between 50 % and 95% of project costs. Applicants that offer to cover a large percentage of the overall cost of a project receive a high score for the cost share criteria.

2.2 Question:

With regards to the submission of FY19BAAs, is there any way to ensure that task orders are awarded in sufficient time to assure acquisition during the 2019 spring acquisition season? Some state partners have trouble spanning state fiscal years.

2.2 Response:

FY19 BAA awards are based on the availability of funding. The USGS will evaluate and rank all proposals shortly after the October 26th submission deadline. If the USGS has fiscal authority to obligate funds (contingent upon the status of the FY19 Federal Budget), the USGS will begin to notify partners of the status of their awards beginning November 15, 2018. Notification letters are sent out in the following order:

1. Applicants requesting a Fall 2018 / Winter 2019 Acquisition
2. Applicants requesting a Spring 2019 Acquisition
 - a. The USGS recognizes that the spring acquisition season occurs earliest in the South; later in the North. With that in mind notification letters are prioritized based on geographic location. Applicants in the south are likely to receive notification of award before those in the northern states.
3. Applicants requesting a Fall 2019 / Winter 2020 Acquisition

IMPORTANT NOTE: For those choosing to use the Geospatial Products and Services Contracts (GPSC), the USGS cannot issue a task order until all project funding has been obligated to the USGS by means of a Joint Funding Agreement (JFA) for non-federal partners or Interagency Agreement (IA) for federal partners. Immediately following notification of a BAA Award, successful applicants will be contacted by the USGS National Map Liaison for your state to begin the agreement process. The USGS National Map Liaison will also facilitate a meeting with a project officer representing the GPSC to help finalize the technical details and cost of your project. Partner participation is critical to assure the agreements to support the project are signed in sufficient time to meet the targeted acquisition dates.

IMPORTANT NOTE: Applicants requesting and receiving financial assistance by means of a cooperative agreement will be notified by a Contracting Officer to complete the award process. Additional paperwork may be required. Partner participation is critical to assure the award to support the project is completed in sufficient time to meet the targeted acquisition dates.

2.3 Question:

Regarding partner contributions, does a project need to have both state and local contributions to be considered for a BAA award?

2.3 Response:

No. Federal agencies, state and local governments, tribes, academic institutions and the private sector are eligible to submit proposals. An application may be submitted on behalf of 1 or more partners. While the program encourages applicants to work across levels of government to determine mutual areas of interest and seek additional funding sources to help support the project, there is no requirement to do so.

2.4 Question:

For those seeking to use the Geospatial Products and Services Suite of Contracts, will the IGCE include the 5% USGS assessment?

2.4 Response:

No. In addition to the acquisition and delivery cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the 5% assessment.

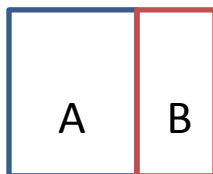
2.5 Question:

Could you explain if projects that are planned for acquisition prior to the selection of FY19 awards can still be considered for funding? Is there a limit for applying for supplemental funding to support past projects (e.g., acquisitions that are more than 1-5 years old?)

2.5 Response:

Each project is considered on a case by case basis, based on alignment with the criteria for selection as defined in Section VI. Proposal Review Information A. Criteria of the solicitation. 3DEP will not consider funding for any project that was acquired prior to the most recent version of the [Lidar Base Specification v1.3](#). Examples of projects that have been funded in the past include:

- The partner completed an acquisition which meets the 3DEP Standards (including the deliverables) as defined in the [Lidar Base Specification v1.3](#) but the data was not in the public domain; the 3DEP funding was requested to provide the data to the USGS to be made available to the public through [The National Map](#).
- The partner completed a lidar point cloud acquisition which meets the accuracy specs as defined in the [Lidar Base Specification v1.3](#), but did not include the generation of breaklines which results in a hydro-flattened DEM. The partner requested funding to support the generation of breaklines / DEM and the delivery of the data to the USGS to be made available to the public through [The National Map](#).
- The partner funded or plans to fund a lidar project which meets the 3DEP Standards (including the deliverables) as defined in the [Lidar Base Specification v1.3](#) and wants to report the recent / proposed acquisition as an “in-kind” match to request additional funds for an adjacent project. This is generally presented as a state or local partner who has acquired or plans to acquire Area A regardless, but requests funding through the 3DEP BAA to expand the acquisition to include areas A and B.



2.6 Question:

As the full /final cost of a project may not be known at the time of submission (applicant enters a cost ESTIMATE) will the award amount be increased / decreased to maintain the requested % contribution match once the final cost of the project has been determined? The final contract price the partner signs with a vendor may be higher or lower than the estimate.

2.6 Response:

For those applicants applying for a cooperative agreement, the final amount of your award is set and cannot be modified. The BAA evaluation team reviews your technical proposal as well as the estimated price to determine if the price represents a fair market value for the proposed acquisition. Applicants are encouraged to research lidar acquisition costs in advance of submitting a proposal. The Contracting Officer (CO) may request additional information or request to negotiate with the partner prior to award if the evaluation team has concerns that the ESTIMATED cost does not reflect a realistic cost to acquire the data.

For applicants applying to use the Geospatial Products and Services Contract (GPSC), the final price of the project will be determined post award. The BAA evaluation team reviews the project cost in the proposal to determine if the price represents a fair market value for the proposed acquisition. The Contracting Officer (CO) may request additional information or request to negotiate with the partner prior to award. The award amount may be increased / decreased to reflect final project costs. The applicant may also choose to increase / decrease the project size to reflect the available funding. As noted in BAA Attachment A: Proposal Submission Tool, applicants may send a request to the GPSC prior to submission to obtain an Independent Government Cost Estimate (IGCE) for a specific AOI. However please note that the request must be submitted by October 1st to assure sufficient time to generate the estimate.

2.7 Question

Can you please further explain and / or provide examples of the following statement (from solicitation Section IV.B.2).: *“State and local applicants requesting an award in the form of a cooperative agreement must contribute a minimum of 25% State and/or local funds to the collective applicant cost share. Federal partners are welcome participants in State / local applications, but their contributions may not represent more than 75% of the applicant’s cost share.”*

2.7 Response:

This 25% rule only applies to state and local applicants applying for financial assistance in the form of a cooperative agreement. If an applicant is proposing to commit \$100,000 to the project (“Funding Partner Total” on Attachment A, a minimum of \$25,000 must come from a state or local partner. See the chart below for other examples. The 25% is based on the “Funding Partner Total”. The “Total Estimated Project Cost” and the “Funds Requested from 3DEP” are NOT considered in this calculation.

Total Estimated Project Cost	\$500,000	\$500,000	\$500,000
Funding Partner Total	\$100,000	\$200,000	\$300,000
25% Minimum Contribution from a State / Local Partner(s)	\$25,000	\$50,000	\$75,000
75% Maximum Contribution from Federal Partner(s)	\$75,000	\$150,000	\$225,000
Funds Requested from 3DEP	\$400,000	\$300,000	\$200,000

2.8 Question:

Our state agency receives a portion of our funding from a federal source. Should this funding be listed as a “federal” contribution or should it be listed as a “state” contribution.

2.8 Response:

3DEP is a partnership program that relies on the collaborative efforts of federal, state, local, tribal, non-profit and private stakeholders to provide funding to support the program. The program tracks the percentage of federal and non-federal contributions. For accurate reporting we encourage applicants to list the full suite of funding partners who contribute funds to a project.

However, many state agencies receive a portion of their annual operating expenses from a federal source and use it as they see fit based on the authorities under which the funds were transferred to the state. An applicant must adhere to any specific instructions or conditions noted in the original agreement.

If the USGS will be receiving funds directly from the federal agency (via an IA) or will need to invoice the federal agency directly the applicant **MUST** list the federal agency as a funding partner and note the contribution as “federal” in the funding table of attachment A.

For applicants applying for cooperative agreements, applicants should be as explicit as possible to support the reporting requirements of the 3DEP; however, the minimum requirement is to list the agencies which are providing funds in direct support of the project. For example, if a state Department of Natural Resources(DNR) is providing \$100,000 to support a project, the proposal can list the state DNR as the funding partner, regardless of whether the state DNR received any portion of their funding from a federal source. 3DEP would encourage the applicant to note any collaboration with federal partners in their project summaries

2.9 Question:

Is there an upper limit (dollar amount) for 3DEP BAA Awards?

2.9 Response:

The USGS does NOT set a maximum \$\$ amount for BAA Awards. In FY18, BAA awards ranged from \$23,205 to \$1,056,000, with an average award of \$403,134. Because each project is a different size, both the partner contribution and the 3DEP award are project dependent. The common factor between all projects is the percentage of the project funds that a partner is willing to fund. The evaluation team looks at the percentage of the project that the partner is proposing to fund.

Although project scores are based on % and not on actual \$\$ amount, the USGS does have a limited amount of funding to use to support BAA awards. 3DEP reserves the right to negotiate with the applicant if a project is worthy but exceeds the available funding. In several cases 3DEP and the partner have agreed to a smaller project to reflect available funding.

2.10 Question:

When you refer to “cost share”, does that mean the state contribution part?

2.10 Response:

"Cost Share" reflects the partner (applicant) funding. Applicants can be federal, state, localities, tribes non-profits or private industry. If you are a state agency applying for BAA funding, then your state funds would be the state "cost share". The funding package for each BAA Partnership Project consists of the "partner funding" and the "funds requested from 3DEP". The funding partner(s) and their proposed contribution are listed in the Proposed Funding Table in *Attachment A: FY18 / 19 BAA Proposal Submission Tool*

2.11 Question:

We have applied for a state grant to cover a portion of our state cost share. Notification on this grant will not occur until November. Can we still submit a BAA proposal?

2.11 Response:

The initial due date for BAA submissions is October 26th. Proposals received by this due date will receive priority consideration for funding. The BAA remains open all year however subsequent awards are based on the availability of funding.

To meet the October 26th deadline, we suggest you submit the proposal and note the contribution as "Pending" (see example below) and provide the date when a decision on the funding will occur. The USGS reserves the right to hold the submission until such time as the certainty of the funding has been determined.

Proposed Funding					
Applicant shall enter the proposed funding partners, the amount each partner proposes to contribute to the project and the total funding available from partners. The applicant is also asked to provide the certainty of each partner's contribution. Each proposed funding partner must complete Attachment B – <i>Validation of Funding Partner</i> . The attachments shall be included as part of the submission package.					
Total Estimated Project Cost (from previous page):		\$ 0.00			
Funding Partner(s)			% Cost Share for 3DEP Base Data	Certainty of Contribution (Guaranteed, Pending)	If funding is 'Pending'- (not yet guaranteed); note date (MMM YYYY) when funding decision will be final.
Name(s)	Type	Proposed Contribution for Lidar Data Acquisition, Processing, QA/QC			
State Grant Program	Nonfederal	\$100,000.00		Pending	November 2018
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
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2.12 Question

Will the USGS include Tide Coordination in their Independent Government Cost Estimates (IGCE)s?

2.12 Response

The USGS will no longer be providing an average cost for square mile for BAA applicants to use to estimate project costs. Each applicant must secure a cost estimate by means of:

- An Independent Government Cost Estimate (IGCE) received from the USGS Geospatial Products and Services Contracts (GPSC) Commercial Partnership Team (CPT). Applicants should follow the instructions and submit Attachment C: Request for Preliminary Independent Government Cost Estimate (IGCE) as soon as possible and no later than October 1, 2018 to receive the estimate in sufficient time to meet the 26 October submission deadline.
- An estimate received from a lidar acquisition contractor. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimates reflect valid industry cost for the specific geographic area and reflect a good value to the government.
- An estimate from another source together with an explanation of how the cost estimate was derived to enable an evaluation of the proposed project costs. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimates reflect valid industry cost for the specific geographic area and reflect a good value to the government

If an applicant has a requirement for tidal coordination, the requirement and associated costs should be included in the project estimate. For those utilizing Attachment C to secure a government IGCE, the form provides an opportunity for you to note a requirement for tidal coordination.

2.13 Question

How should the cost of upgrades to QL1 specification be noted within the BAA Submission package?

2.13 Response

Reference to QL1 areas should be noted in the following locations in Attachment A Proposal Submission Tool:

- Delineate QL1 / QL2 AOIs in the Project Diagram
- Delineate QL1 / QL2 AOIs in the Project Shapefile or KML/KMZ file
- Under the Project Finance Section use Option 1 to enter the total cost for the full project
 - We recognize that a total project cost that includes both QL1 and QL2 AOIs will generate a cost per square mile that does not reflect a valid QL2 cost for the project. The 3DEP team will take that into consideration and will make the necessary adjustments to assure a fair evaluation of project costs.
- Under Additional Project Details of Clarifications provide any text that will further explain those areas you wish to upgrade to QL1

2.14 Question

We are aware of a number of stakeholders who share requirements over our area of interest (AOI) but have no current funding. Should these stakeholders enter their AOIs into Seasketch. Is there value to listing these stakeholders in our project summary in our BAA submission?

2.14 Response

3DEP encourages you to update all of your requirements to Seasketch. Although the priority is to enter and recognize high priority near term requirements (1 to 3 years) that would benefit from immediate collaboration, the program has a requirement for national coverage and is interested in partnership opportunities across the nation. To enter your requirements please use *The 3DEP BAA Public Areas of Interest Project Collector Tool*: <https://survey.geoplatform.gov/index.php/survey/index/sid/318317/#>

BAA Applicants are encouraged to note other stakeholders who may benefit from your lidar acquisition. We recognize that there are many stakeholders whose budgets do not currently support data acquisition, however, these same stakeholders may be in a position to utilize the data to create products and services of value to society. It is common for one or more state and / or local agencies to be responsible for procuring data on behalf of all state or local agencies.

3. SeaSketch, Geographic Areas of Interest (AOI)

3.1 Question:

Do partners get an alert when there is an overlapping AOI in [SeaSketch](#)?

3.1 Response:

The [Seasketch](#) application is not currently set up to provide alerts of overlapping AOIs. You are encouraged to check back regularly to check for opportunities to collaborate on lidar acquisition. You are also encouraged to contact your USGS National Map Liaison as noted on the [FY19 USGS BAA for 3DEP Reference Materials](#). The USGS National Map Liaisons are available to all potential applicants to help facilitate meetings between partners.

3.2 Question:

Are you required to submit your project in [SeaSketch](#)?

3.2 Response:

No. The [3D Elevation Program](#) and the Interagency Working Group on Ocean and Coastal Mapping have established a system to share information about areas of interest and proposed and planned elevation projects. Federal, State and Local requirements are available at the NOAA sponsored SeaSketch site: U.S. Federal Mapping Coordination, *A Demonstration Site for Federal Mapping Data Acquisition* (<http://fedmap.seasketch.org>). This mapping site is comprehensive and provides a look at federal, state and local requirements and provides an opportunity for you to find potential funding partners. The tool is useful for BAA project formulation; however, there is no requirement for an applicant to enter their project in SeaSketch. Registration of your project AOI in SeaSketch is not used as part of the BAA evaluation process.

3.3 Question:

If the project information associated with an Area of Interest (AOI) in Seasketch has generic Point of Contact (POC) information, such as "USACE", how can we find out more about who to contact regarding potential collaboration opportunities?

3.3 Response:

The USGS encourages all submissions to Seasketch to include specific POC information. For federal projects that do not have this level of detail, the USGS will provide you with the contact information for the federal agency representative to the 3DEP Working Group (WG). These representatives work at the national level; if they are not in a position to provide direct assistance they may direct you to the appropriate regional POC. Inquiries on specific project AOIs can be submitted to gs_baa@usgs.gov for resolution and follow up.

3.4 Question:

There are stream corridors shown on Sea Sketch that are labeled as USGS/NPS areas and cross our proposed AOI, can you provide clarification on those areas? Can those entities be brought in as partners?

3.4 Response:

The NPS has noted a requirement for lidar data over all NPS lands. For example, The “stream corridors” shown in CO are actually AOIs related to [National Trails](#). Both the Old Spanish National Historic Trail and the Continental Divide National Scenic Trail pass through Colorado. While we encourage applicants to reach out to all Points of Contact (POCs) listed for Areas of Interest (AOIs) that intersect with their proposed project area, the NPS currently has limited funding to support lidar acquisitions but you are encouraged to engage with all potential partners to develop funding packages.

3.5 Question:

Our agency has a suite of requirements, some have progressed to active planning, others are program needs to be addressed in future years. Is it permissible to upload all of these requirements to Seasketch or do we need to start the active planning process first?

3.5 Response:

3DEP encourages you to update all of your requirements to Seasketch. Although the priority is to enter and recognize high priority near term requirements (1 to 3 years) that would benefit from immediate collaboration, the program has a requirement for national coverage and is interested in partnership opportunities across the nation. To enter your requirements please use *The 3DEP BAA Public Areas of Interest Project Collector Tool*: <https://survey.geoplatform.gov/index.php/survey/index/sid/318317/#>

3.6 Question:

How long does it take for an AOI to show up in Seasketch once it has been entered through the *3DEP BAA Public Areas of Interest Project Collector Tool*:

<https://survey.geoplatform.gov/index.php/survey/index/sid/318317/#>?

3.6 Response:

Projects will generally show up 48 to 72 hours following submission. The USGS must manually enter the projects into the database after it is submitted through the collector tool. It may then take up to 24 hours for the viewer to refresh.

3.7 Question:

Q: For those areas of the country identified on Attachments E-H as In-Progress or Existing Lidar Data or Planned / Funded, what is the best way to identify the 3DEP QL of the lidar point cloud? Is default coverage QL2?

3.7 Response:

Default coverage for 3DEP projects is QL2, however a number of partners have chosen to pay to upgrade their project and secure the higher density QL1 to satisfy specific requirements and / or applications. All 3DEP data is included in the [United States Interagency Elevation Inventory \(USIEI\)](#), the quality level is included as illustrated below

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IDENTIFY

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SHARE

TOPOGRAPHIC

2

BATHYMETRIC

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TOPOBATHY

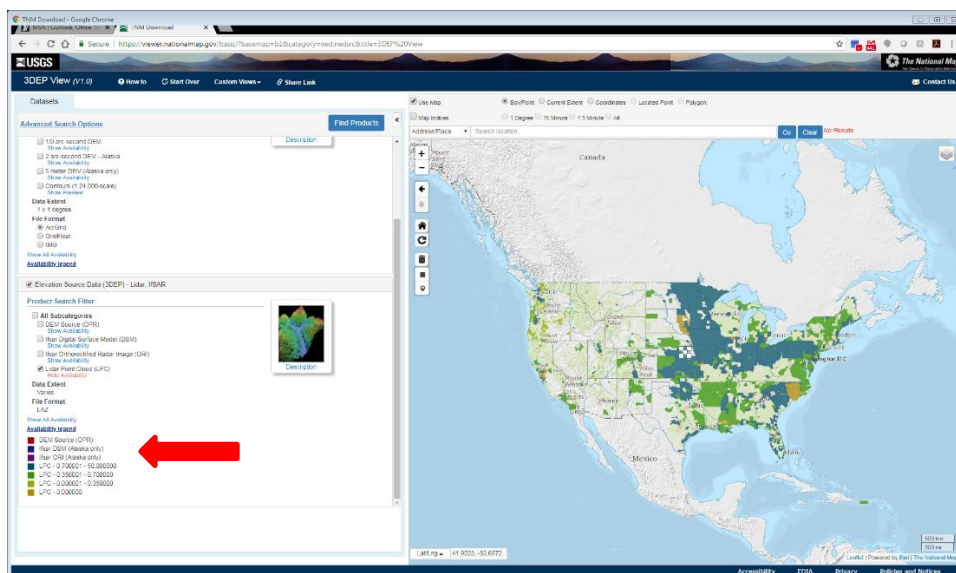
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2017 NRCS and FEMA South Central VA and WV Lidar

DATA SET NAME	2017 NRCS and FEMA South Central VA and WV Lidar
DATA ACCESS	Will be available at The National Map
METADATA ACCESS	Will be available at The National Map
COLLECTION DATE	11/11/2017 -
QUALITY LEVEL	2
MEETS 3DEP	Expected to meet
REASON DATA DOES/DOES NOT MEET 3DEP	QL2 or better quality lidar data with USGS Base Spec v1.2 products

The quality of the data is also available through [The National Map \(TNM\) Viewer](#).



The screenshot displays the USGS 3DEP View (v1.0) interface. On the left, the 'Data Extent' section lists various data sources and their quality levels (QL1, QL2, QL3). A red arrow points to the 'Data Extent' section. The main map area shows a color-coded elevation distribution across the United States, with a legend on the left indicating the quality levels. The interface includes a search bar, a map view, and a list of data products.

3.8 Question:

Hi, I'm trying to understand the meaning of the two map categories on Attachment H of the FY19 BAA, the one for FEMA. There's "Fully Funded Seeking Adjacency" and "Partially Funded Seeking Partnerships". Can you clarify what is meant by "fully funded" and "partially funded"? Does fully funded mean FEMA is going to cover the entire cost of QL2 lidar acquisition? Or does it mean that FEMA will cover the entire 3DEP portion of a project?

3.8 Response:

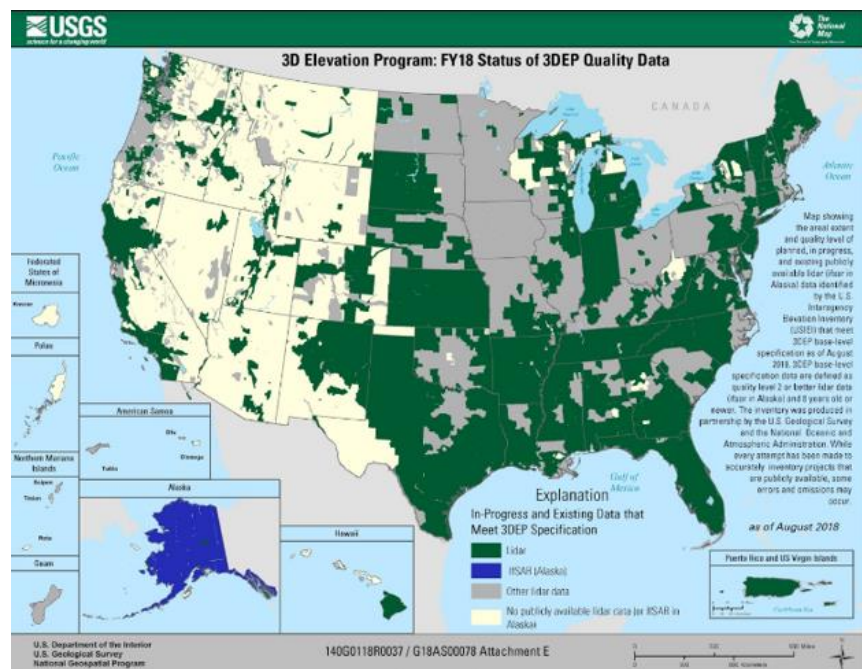
"Fully Funded" means that FEMA is going to cover the entire cost of these projects, no additional funding partners are needed. These projects will be contracted through the GPSC, targeted acquisition is Fall 2018/Winter 2019 or Spring 2019.

The "Fully Funded" areas are noted as "seeking adjacency". One of the BAA criteria as noted in Section VI. Proposal Review Information, A. Criteria of the solicitation is overlap with federal AOIs. Because these areas are fully funded, there is no need for nor is there an opportunity to increase your project score by submitting projects overlapping these areas. 3DEP will provide additional consideration to projects immediately adjacent to one of the FEMA projects to support the 3DEP goal of large regional acquisitions. If the adjacent project is to be contracted through the GPSC, 3DEP has the option to combine and potentially lower the overall cost. If an adjacent project is to be acquired by means of a cooperative agreement, there is still value in temporally consistent lidar data for regional studies.

Some projects are noted as "Partially Funded". A partially funded project is an indication that the federal regional office has some funds to support data acquisition over the designated AOI, but their funding level is not sufficient to cover the cost of the entire AOI. They are seeking state and local partners to help support the project. To explore partnership opportunities you are encouraged to view the project POC(s) available through [SeaSketch](#) or to contact your [USGS National Map Liaison](#). National Map Liaisons can help facilitate meetings between potential partners.

3.9 Question:

Attachment E: 3D Elevation Program: FY18 Status of 3DEP Quality Data includes reference to "Other lidar data". Can you please elaborate on what is included in this category?

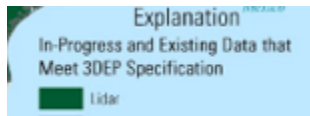


3.9 Response:

[The US Interagency Elevation Inventory](#) (USIEI) is a comprehensive, nationwide listing of all known high-accuracy topographic and bathymetric data for the United States and its territories. 3DEP projects must adhere to the USGS Lidar Base Specifications. In addition to the requirements outlined in the USGS Lidar Base Specification, lidar data and derived products must meet the current definition of Quality Level 2 (QL2) or greater as follows:

“Classified lidar point cloud data, with a minimum point density of 2 points per square meter, a nominal lidar pulse spacing of no greater than 0.7 meter, and a relative vertical accuracy of no greater than 10-cm root mean squared error (RMSEz)”

3DEP has a goal to acquire 3DEP quality data across the nation. Data included in the inventory that meet 3DEP requirements show up on the map as dark green and are noted in the Explanation as “In-Progress and Existing Data that meet 3DEP Specifications”:



Data included in the inventory that DO NOT meet 3DEP Standards and Specifications are depicted in the grey and noted as “Other lidar data”.

3.10 Question:

Does a small county have a chance at being selected for a BAA award?

3.10 Response:

The goal of the BAA is to help achieve the 3DEP goal of nationwide coverage of high resolution elevation data in 8 years, beginning in 2016. To accomplish this goal, the USGS prefers to fund lidar surveys over a relatively large area to achieve economies of scale. Currently, the minimum preferred project size is 1,500 square miles, smaller projects are considered on a case by case basis:

- To fill in gaps in coverage
- Where the project AOI defines a complete geophysical (such as a watershed) or political (such as a county) unit
- For projects that represent significant cost share by the applicant
- When the proposed acquisition covers an area over which significant changes to the landscape have occurred

We would encourage you to work with surrounding counties to gauge interest in a regional acquisition to achieve economies of scale. However, in FY18, the BAA supported 5 projects under 500 square miles.

3.11 Question:

How would a request for a multi-year project be presented in a BAA application?

3.11 Response:

The 3DEP BAA only accepts submissions for single year funding. As appropriate we do encourage reference to multi-year plans, such as “this submission is requesting funding for phase 1 of a 3 year plan” or alternately you can point to a website that includes information on your multi-year goals and objectives. This information should be included in Attachment A *Project Summary* or *Additional Project Details or Clarifications*.

4. Technical, Lidar Base Specifications, Lidar Products and Services, Non-Conventional Technologies

4.1 Question:

I saw the announcement for the upcoming webinar's related to the 2018/2019 BAA for the 3DEP program and have a question I'm hoping you can help with; is the potential BAA funding available for aerial, mobile or terrestrial LiDAR collection efforts or is the funding for one type of LiDAR data collection (i.e. aerial)??

4.1 Response:

The goal of the BAA is to help achieve the 3DEP goal of nationwide coverage of high resolution elevation data in 8 years, beginning in 2016. To accomplish this goal, the USGS prefers to fund lidar surveys over a relatively large area to achieve economies of scale. Currently, the minimum preferred project size is 1,500 square miles, smaller projects are considered on a case by case basis:

- To fill in gaps in coverage
- Where the project AOI defines a complete geophysical or political unit
- For projects that represent significant cost share by the applicant
- When the proposed acquisition covers an area over which significant changes to the landscape have occurred
- If the proposed acquisition will provide critical information to support a significant scientific or societal concern

Although mobile terrestrial lidar has been proven to produce lidar point clouds that easily exceed the point density and accuracy requirements of 3DEP, the project footprints are so small that we would likely end up with a requirement to recollect these very small areas when contracting for lidar surveys over the surrounding area. The goals and objectives of 3DEP are currently best served through aerial surveys.

4.2 Question:

Is the 3D Elevation Program (3DEP) Broad Agency Announcement (BAA) funding available to support research in the use of drones to collect lidar data?

4.2 Response:

The 3DEP Broad Agency Announcement (BAA) **does not** provide funding for research.

The 3DEP BAA is open to applicants who wish to propose a partnership for the **acquisition** of lidar data over designated areas in the US. The Solicitation is available through [FedBizOpps](#) or [grants.gov](#). The areas of interest are identified within the BAA and are also available on our [USGS 3DEP BAA Resource Page](#). The goal of the program is to acquire nation-wide data. As such the program prefers projects over 1500 square miles. The average project size from our FY17 solicitation (which resulted in awards in FY18) was ~ 3500 square miles. While we do not specify the technology, and applicants are welcome to submit proposals suggesting the use of alternate technologies; applicants should consider the limitations of drone technologies to support large scale acquisitions. In addition all acquisitions must adhere to the current [USGS Lidar Base Specification](#) except as noted in *Section II.D.3: 3D Elevation Program (3DEP) Opportunity Description, 3DEP Base Lidar Specifications, Project Deliverables and Upgrade Options, Exceptions for Non-Conventional Technologies* of the Solicitation.

3DEP recognizes the need for continued research as noted on page 25 of [The 3D Elevation Program Initiative – A Call for Action, Research Requirements](#). The research needs are NOT addressed through the BAA.

4.3 Question:

Are Lidar-derived products like bare earth model covered by BAA?

4.3 Response:

The BAA covers the acquisition, QA/QC and delivery of all products as defined in the “Deliverables” section of the [Lidar Base Specification](#). For applicants selecting to make use of the Geospatial Products and Services suite of contracts (GPSC), additional products and services are available however the full cost of the upgrades are the responsibility of the applicant.

4.4 Question:

With regards to the BAA reference to “consideration of proposals requesting non-conventional technologies”, would inland bathymetry sensors (a) be considered a non-conventional tech and (b) be subject to consideration by 3DEP?

4.4 Response

The goal of the 3DEP program is **nation-wide terrestrial lidar** (with ifasr in Alaska). The BAA program funding is designated to support this goal. 3DEP recognizes the need for research on new technologies and the need to develop acquisition strategies that support a complete landscape modal which may require the acquisition of both terrestrial and bathymetric (inland, coastal) data.

- In FY18 the USGS provided funding to support several research projects that included the acquisition of inland bathymetry, however those projects **were not supported through BAA funding**. The BAA funding is set aside to support partnerships for the acquisition of terrestrial lidar.
- The USGS Geospatial Products and Services Contract (GPSC) can support the acquisition of bathymetric data. The team can help define project needs and can develop an independent government cost estimate (IGCE) for a project area.
- The USGS welcomes proposals through the BAA that include a requirement for both terrestrial and bathymetric data **HOWEVER** the USGS will only be in a position to offer partnership dollars to support the terrestrial component of the acquisition. Any costs associated with the addition of bathymetric data will be borne solely by the applicant.

4.5 Question:

With regards to the BAA reference to “consideration of proposals requesting non-conventional technologies”, can you explain the conditions under which Geiger Mode and Single Photon Lidar would be considered?

4.5 Response:

The USGS has only begun to receive delivery of the data from our FY15, FY16 and FY17 provisional projects so are not yet in a position to make a global statement about the conditions for which the Geiger and SPL systems can provide data suitable for ingestion into the national 3DEP data holdings; we have been working very closely with our GPSC prime contractors who are working with the companies that utilize these systems on the continued evolution of these resource. Considerable progress has been made.

Section II. *3D Elevation Program (3DEP) Opportunity Description*, D. *3DEP Base Lidar Specifications, Project Deliverables and Upgrade Options*, 3. *Exceptions for Non-Conventional Technologies*, notes the following:

3. *Exceptions for Non-Conventional Technologies*

Geiger Mode and Single Photon lidar systems do not currently meet the [USGS Lidar Base Specification](#), as that specification was written to specifically address conventional lidar systems. Submissions for the use of these technologies will be considered and reviewed against the stated criteria as noted in section VI. A, with noted exceptions to the lidar base specifications. All exceptions to the lidar base specifications resulting from the use of non-conventional lidar systems will be documented, discussed and agreed upon prior to final award. Agreed upon exceptions to the Lidar Base Specifications will be noted in the award documentation.

With regards to the specification, a general statement is:

Data shall adhere to USGS Base Lidar Specifications V1.3 (*Heidemann, Hans Karl, 2014, Lidar base specification (ver. 1.3, February 2018): U.S. Geological Survey Techniques and Methods, book 11, chap. B4, 101 p., [https:// doi.org/10.3133/tm11b4](https://doi.org/10.3133/tm11b4).*) with the exception of those elements written specifically to address linear mode systems. All exceptions will be clearly articulated within the project task order.

4.6 Question

Will the USGS share their guidelines or Lidar Base Specification 1.3 modifications with regard to non-conventional lidar such that they can be incorporated into scopes of work for this upcoming fall/ winter acquisition season?

4.6 Response

The USGS has not yet published any updates to the [Lidar Base Specification 1.3](#) to address non-conventional lidar systems. For general information on the variations from the Lidar Base Specification we would encourage you to refer to *Remote Sens.* **2016**, 8(9), 767; doi:[10.3390/rs8090767](https://doi.org/10.3390/rs8090767); *Evaluation of Single Photon and Geiger Mode Lidar for the 3D Elevation Program*: Table 3. Compliance to USGS Lidar Base Spec v1.2. It is important to note that the systems have continued to mature and evolve since the date of this publication.

For applicants proposing to use non-conventional systems and utilize the services of the GPSC, the USGS will consult with the applicant prior to final award to discuss the potential use of a non-conventional technology. The USGS will explain all variations from the lidar based specification including any variations

in the project deliverables. The USGS will discuss the results of known projects of similar scope and terrain. For BAA projects in which the USGS is investing, the final decision to use a non-conventional technology will be the responsibility of the USGS.

For BAA applicants proposing to manage the acquisition contract (financial assistance in the form of a cooperative agreement) the USGS would recommend that you consult with all potential vendors to discuss your project requirements and the potential use of their technologies to satisfy your requirements. As noted in question 4.6: *"The USGS has only begun to receive delivery of the data from our FY15, FY16 and FY17 provisional projects so are not yet in a position to make a global statement about the conditions for which the Geiger and Single Photon Lidar (SPL) systems can provide data suitable for ingestion into the national 3DEP data holdings."* The technical proposal must detail the use of a non-conventional technology.

All systems continue to mature and evolve. For cooperative agreements the USGS will note current acceptable deviations from the lidar base specification in the award documentation. The USGS is available for technical consultation for any applicant who requires verbiage for inclusion in a RFP. Requests for assistance should be submitted to gs_baa@usgs.gov.

4.7 Question:

For Flood Risk mapping projects (using FEMA funds) and using 3DEP cost share, is hydroflattening required for the 3DEP requirement even though it is not required for FEMA's Policy for Standards for Flood Risk Analysis and Mapping?

4.7 Response:

All data acquired in support of the 3D Elevation Program (3DEP) must adhere to the current [Lidar Base Specification](#) which notes a requirement for the delivery of a hydro-flattened bare-earth DEM. FEMA is a contributing partner to 3DEP and has adopted the Lidar Base Specification for all partnership projects.

4.8 Question:

We have a requirement to generate one foot contours. Can the contours be generated from QL2 data or do we need to acquire the higher density QL1 data?

4.8 Response:

Contours are automatically generated from the point cloud data. The technology will allow the generation of 1 foot contours from either QL2 or QL1 data, however the higher density QL1 data will result in a more accurate product. To best address the requirement, additional information is needed. To make contours useful for engineering work you will likely need to generate additional hydro breaklines, slope breaklines, and perhaps even some aspect of hydro enforcement work to support the process of contour generation. Additional information on the subject has been published in professional journals by scientists, engineers, surveyors, GIS Professionals and other subject matter experts familiar with the topic. One such article [Abdullah, Q.A. \(2009\) Mapping Matters Your Questions Answered The layman's perspective on technical theory and practical applications of mapping and GIS, Photogrammetric Engineering & Remote Sensing, March 2009, 231-232](#) may provide useful information. You may also find the following article useful: [National Oceanic and Atmospheric Administration \(NOAA\) Coastal Services Center. 2012. "Lidar 101: An Introduction to Lidar Technology, Data, and Applications." Revised. Charleston, SC: NOAA Coastal Services Center.](#) For those planning to use the USGS GPSC suite of contracts to acquire your data, we would strongly recommend you discuss your specific needs with the USGS Commercial Partnership Team (CPT). The subject matter experts in this team can assure the development of a task order that will result in data that satisfies your requirements. For those planning to manage their own contract by means of a Cooperative Agreement, we would suggest you discuss your specific needs with the vendor you have selected to compete the acquisition, processing and generation of the contours. These professionals have the expertise to support your requirements.

4.9 Question

Is the 3DEP Tiling Scheme (Albers Equal Area 1km x 1km tiles) required for FY18? If so, where can we download the grid.

4.9 Response

Section II. B.5 of the BAA notes the following:

5. 3D Elevation Program National Indexing Scheme

3DEP has been operating under an annual, opportunistic approach to data acquisition, acquiring lidar projects of varying sizes, scattered across the US. As a result, the national 3DEP elevation layer is subject to data gaps or unnecessary overlap between adjacent collections. To mitigate this problem, future collections within the lower 48 will be coordinated by using an [Albers Equal Area 1km x 1km indexing scheme](#). The project boundaries of all BAA projects that propose to use the Geospatial Products and Services suite of Contracts (GPSC) will be converted to conform to the Albers Equal Area projection and extended to complete all 1km x 1 km tiles that intersect the project boundary. Additional information and instructions for converting and expanding a project boundary to the Albers Equal Area projection are included in Attachment B. The data will be delivered to the USGS in the CONUS Albers Equal Area 1 km x 1 km scheme and, if requested to the funding partner in a spatial reference system and tiling scheme of their choice. The price of these adjustments are now a routine part of the total cost of a project and will be included in the Independent Government Cost Estimate (IGCE); applicants should take these costs into consideration when requesting partnership funds from 3DEP to assure sufficient funds to support the work.

Cooperative Agreement recipients must acquire and deliver data that is in concurrence with the [3DEP National Indexing Scheme](#). Applicant contracts should specify that the data will be delivered to the USGS in the CONUS Albers Equal Area 1 km x 1 km scheme in addition to the spatial reference system and tiling scheme of their choice. Additional information and instructions for converting a project boundary to the Albers Equal Area projection and expanding to 1km x 1km tiles are included in Attachment B. These adjustments may add an additional 1% to 3% to project costs; applicants should take these costs into consideration when requesting partnership funds from 3DEP to assure sufficient funds to support the work. 3DEP recognizes that applicants may have existing multi-year contracts in place with acquisition vendors that do not support this requirement. Requests for exceptions to the requirement should be documented in Attachment A: Proposal Submission Tool. Exceptions to the requirement will be discussed, documented and agreed upon prior to final award. Agreed upon exceptions will be noted in the award documentation.

The grid is available for download: https://nationalmap.gov/3DEP/3dep_national_indexing_scheme.html

4.10 Question

Our AOI intersects with an area of culturally sensitive archeological artifacts that we do not wish to be published. Can the USGS restrict the public distribution of lidar data over these areas.

4.10 Response

The BAA currently states the following:

The [DOI Policy on Consultation with Indian Tribes](#) and the DOI Policy on Consultation with Alaska Native Claims Settlement Act (ANCSA) Corporations requires that DOI Agencies provide federally-recognized Indian Tribes or ANCSA Corporations the opportunity to consult with the Agency before taking any action affecting tribal or ANCSA Corporation interests. USGS has determined that the acquisition and publication of airborne lidar over tribal lands requires tribal notification. BAA award recipients, both those using GPSC as well as Cooperative Agreement recipients, are subject to this policy.

USGS will initiate and manage the tribal notification and consultation process on behalf of all BAA award recipients during the project planning stage, if possible, before the lidar acquisition contract is awarded. USGS will identify any tribal/ANCSA lands within the project boundary and send a notification letter to those tribes. The BAA award recipients will be notified that the project boundary contains tribal lands and will receive a copy of the tribal notification letter. If there is no response within 30 days, the project may proceed. If an agreement with a Tribe on allowing data acquisition over tribal lands cannot be reached during the engagement or consultation process, the portion of the project over tribal lands will not proceed. If the tribe agrees to acquisition but objects to public release of any of the products resulting from the lidar acquisition over their lands, the data may not be published. All other project area data outside of the tribal lands boundaries will be published. Funding partners may be provided a copy of the entire project data for their own needs but may not further distribute the data concerning the tribal lands.

Additional language for projects on surveyor access to tribal lands:

USGS requests that the data acquisition contract contain language regarding access to tribal lands by survey teams. The contract should state that the lidar vendor should avoid sending survey teams onto tribal lands if possible. If the teams need to collect data on tribal lands it should be limited to federal, state, county or Bureau of Indian Affairs (BIA) road right of ways. If a project requires additional points outside of these areas, the survey team will contact the tribe to determine their procedures for access to tribal lands.

It is important to note that the policy is subject to change. Any change to the policy or the DOI/USGS interpretation or implementation of said policy will be reflected in a revised version of this response.

4.11 Question

Are Tribal lands the only potential exception to the 3DEP acquisition and / or public distribution policy.

4.11 Response

The Department of Defense (DOD) imposes some restrictions over military and other DOD installations. Any known restrictions in your proposed area of interest (AOI) will be identified and discussed with an applicant prior to award. Other concerns or questions about restricted areas within your AOI should be listed in Attachment A under Additional Project Details or Clarifications.